San Bernardino Engineering Depot NPL

Size: 1,663 acres
Mission: World War II Engineer storage depot, Quartermaster repair facility, and prisoner of war camp
HRS Score: Unknown
IAG Status: None
Contaminants: TCE, PCE, and Freon 11 and 12
Media Affected: Groundwater
Funding to Date: $2.9 million
Estimated Cost to Completion (Completion Year): $3.3 million (FY2000)
Final Remedy in Place or Response Complete Date for All Sites: NA

San Bernardino, California

Restoration Background

The San Bernardino Engineering Depot closed in 1947. Since then, the area has been developed for industrial and residential uses. The Newmark Groundwater Contamination Site was added to the National Priorities List (NPL) in 1989, after discovery of two groundwater plumes during a water supply monitoring program. The Newmark and Muscoy plumes are located on the east and west sides of the site, respectively.

The discovery of tetrachloroethene (PCE), trichloroethene (TCE), and chlorinated solvents in the groundwater resulted in the closure of 20 water supply wells. The state brought 12 of the wells back into operation by installing air stripping towers on eight wells and carbon filtration systems on the other four.

In FY88, EPA conducted a preliminary investigation at the installation. In May 1992, EPA conducted a soil gas investigation to evaluate the need for a Removal Action at a suspected disposal site in a residential neighborhood. No volatile organic compounds (VOCs) were found in areas above the contaminated groundwater. In FY93, EPA conducted a subsurface survey to investigate a suspected military equipment disposal site; however, no site was found.

An investigation was initiated in FY90 to identify the source of the Newmark plume contaminants and to identify ways of controlling continued downgradient migration while removing contaminants. The investigation determined that the contamination originated at least 2 miles upgradient of the site in another portion of the valley. A pump-and-treat remedy using conventional activated carbon adsorption technology was chosen.

In FY92, an investigation of the Muscoy area was initiated. EPA separated the area into two projects in FY94: one to address the spread of contamination and the other to clean up the source of contamination.

DoD and EPA have been working closely with the U.S. Army Corps of Engineers (USACE) and the San Bernardino County Solid Waste Department to investigate the nature and extent of the contamination. Efforts to date have included research of military archives, numerous interviews, seismic and magnetometer surveys of the subsurface, and construction of four monitoring wells.

EPA conducted Remedial Investigation and Feasibility Study activities in FY91, FY92, and FY95 and completed two Records of Decision in FY93 and FY94. The site has been divided into three operable units. In FY97, granular activated carbon and pump-and-treat remedies were employed by EPA at the former DoD property.

FY98 Restoration Progress

USACE developed an overall investigation strategy and technical approaches for investigating both the upgradient source and former facility operations. USACE's investigation work plans underwent a stringent EPA concurrence process. Consultation with the U.S. Fish and Wildlife Service was completed for potential impacts on several endangered species; the San Bernardino Kangaroo Rat was listed as an endangered species.

Plan of Action

- In FY99, install groundwater wells and conduct soil vapor borings near sewage treatment plant and below the landfill; evaluate results for indications of presence of contaminant plume and for probability of surface release
- In FY99, install groundwater wells and conduct soil vapor borings in next parcel uphill from the sewage treatment plant to determine the direction from which contamination may be flowing onto the former camp property; evaluate soil vapor for indications of surface release on former Army property
- In FY99, conduct soil gas probes on the former camp property to detect surface releases
- In FY99, consult with EPA, on groundwater well and soil vapor borings data and their implications for future projects at property

FY99 Funding by Phase and Relative Risk